



New NOAAPORT Data Requirements Status - View Through AWIPS Build 5.0

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NOAAPORT Data Requirements

- ◆ New Requirements - The Process
- ◆ Implementation Pre-Cursors
- ◆ Implementation Drivers
- ◆ Data Requirements - Status
 - Satellite
 - Radar
 - Grids
 - BUFR
 - Text

AWIPS New Data Requirements

The Process

- ◆ NWS Data Requirement - Adding the data type to AWIPS Appendix K.
- ◆ Requirement Validation Process
 - Scientific Assessment
 - Operational Evaluation
 - Requirement Prioritization (Cost/Benefit)
 - Adoption of New Requirement

AWIPS New Data Requirements Implementation Pre-Cursors

- ◆ Implementation of New Data Requirements is Dependent on the Following:
 - Ability of the Data Producer to Format the product using NWS/WMO Data Standards
 - Capacity of NWS/AWIPS Communications Bandwidth to Deliver Product
 - Ability of AWIPS to Ingest, Store, and Display the Data

NOAAPORT Data Requirements - Implementation Drivers

- ◆ Primary Implementation Drivers and Limitations of New Data Requirements are:
 - Competition with other NWS Requirements...MAR, Y2K, Software Fixes and Enhancements
 - Limitations of Programming Resources/Staff
 - Limitations of \$\$\$
 - Availability of an AWIPS Build Cycle

NOAAPORT Data Requirements - Status

- ◆ Data Requirements - Status
 - Many new data requirements are pending
 - Implementation of New Requirements is TBD
 - ◆ Most NWS developer resources are focused on AWIPS 4.2...*NWS #1 Priority*
 - We will not know which requirements will be accepted for implementation into AWIPS 5.0 until the summer of 1999

NOAAPORT Data Requirements - Status

- ◆ Data Requirements - Satellite Data
 - Derived Soundings (GOES and POES)
 - GOES High Density Winds (VIS/IR/WV)
 - GOES Derived Products
 - ◆ Precip. Water, Skin Temp, Cloud Top and Amount, Lifted Index
 - GOES Precipitation Estimates (IFFA, AutoNowcaster)

NOAAPORT Data Requirements - Status

- ◆ Data Requirements - Satellite Data (cont.)
 - Composites
 - ◆ GMS/GOES West, METEOSAT/GOES East, POES/DMSP
 - POES/DMSP-SSM/I
 - ◆ Marine Winds, Rainfall, Precip. Water
 - Radar (ERS2/QUIKSCAT)
 - ◆ Marine Wind Vectors

NOAAPORT Data Requirements - Status

◆ Data Requirements - Radar

- Phased transition from current radar data processing
- Phase I: 6 + 2 Products in Precip Mode; products are:
 - Base Reflectivity
 - Base Velocity
 - Base Storm Relative Velocity
 - Vertically Integrated Liquid
 - Storm Total Precip
 - Composite Reflectivity
 - Digital Precip Array, Radar Coded Message (every 30 mins)

NOAAPORT Data Requirements - Status

- ◆ Data Requirements - Radar (cont.)
 - Phase II:
 - ◆ Central Storage of Archive 3 and NIDS (WAN)
 - ◆ 6 + 2 Products in Precip Mode (NOAAPORT)
 - Phase III: Archive 3 and current Archive 3 and NIDS product suite (WAN+NOAAPORT)
 - ◆ Begin Broadcast National Radar Mosaic Suite
 - Phase IV: Broadcast of most tilts; all modes (VCP)

NOAAPORT Data Requirements - Status

- ◆ Data Requirements - Numerical Guidance
 - Most current activities at NCEP focused on Y2K and Class 8 porting of applications
 - New gridded products will grow exponentially after NCEP Class 8 implementation (NOV 99)
 - Implementation of NCEP grids in the future will be a major challenge for AWIPS Program
 - ◆ impacting bandwidth, ingest, and storage resources

NOAAPORT Data Requirements - Status

◆ Data Requirements - Numerical Guidance

- Eta
 - ◆ 32km, 45 layers, 4 cycles
 - ◆ 24km, 50 layers, 4 cycles
 - ◆ Time steps through 72 hours
- RUC2
 - ◆ 40km, 40 layers, 24 cycles
 - ◆ 20km, 60 layers, 24 cycles
 - ◆ Time steps through 48 hours
- AVN
 - ◆ 4 cycles + Southern Hemisphere



NOAAPORT Data Requirements - Status

- ◆ Data Requirements - Numerical Guidance
 - NOGAPS 4.0
 - NCEP Ensemble Members (Long and Short Range)
 - MOS
 - ◆ Sunset NGM Based MOS
 - ◆ Partial/Full AVN and MRF based MOS
 - WaveWatch III (NWW3) Wind/Wave Model
 - Flash Flood Guidance

NOAAPORT Data Requirements - Status

- ◆ Data Requirements - Numerical Guidance
 - NCEP Ice Analysis and Drift Grids
 - GFDL Model
 - Grid Near Real-Time Performance Metrics
 - HPC Manual Grids (Temp, PoP, QPF)
 - Marine Grids (Visibility, Ice Accretion)
 - Special Event Support (Hurricanes, Volcano)



NOAAPORT Data Requirements - Status

◆ Data Requirements - Other

- Expansion of RAOB and Surface Observations encoded in BUFR Format
- Aircraft Communications Addressing and Reporting System (ACARS)
- Full Support of AFOS Related Graphics
- Support of WMO Header changes associated with NWS modernization